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EXAMINER

ZHENG, EVA Y

ART UNIT PAPER NUMBER

2634

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,252

Applicant(s)

STACEY ET AL.

Examiner

Eva Yi Zheng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 6-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. In view of the Appeal Brief filed on 8/18/05, PROSECUTIO IS HEREBY REOPENED set forth below:

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193 (b)(2).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference number "36" in Fig.2 has been used to designate two "RE_TIME" circuit blocks. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If

the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "multiplexer circuit" in claim 6, "demultiplexer circuit" in claim 7, and "circuitry to combine voice signal and data signal" in claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 4 is objected to because of the following informalities:

b) on line 8, please change: "a converter circuit" to – a first converter circuit --
, in order to keep consistency and provide better understanding with the second
converter circuit.

a) on line 15, please correct the expression for upsampler circuit for
indicating of increase of frequency. The current expression represents no increase of
frequency from before and after.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

6. Claims 1-5, 11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated
by Rabenko et al. (US 2001/0033583 A1).

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a) Regarding claim 1, Rabenko et al. disclose a system for synchronizing voice signal received via a public switched telephone network (PSTN) and data signal received via a digital subscriber line (DSL), the system comprising:

a PSTN interface coupled to transmit and receive the voice signal (492 in Fig. 15);

a data DSL transceiver coupled to modulate and demodulate the data signal (482 in Fig. 15; [0067])

a synchronization circuit coupled to synchronize said voice signal and said data signal (520 in Fig. 15); and

a converter circuit coupled to convert the synchronized voice signal and the synchronized data signal between analog and digital formats (527 in Fig.15).

b) Regarding claim 2, Rabenko et al. disclose wherein said converter circuit converts said voice signal and said data signal from a digital format to an analog format for transmitting a combined voice and data signal (524 in Fig.15).

c) Regarding claim 3, Rabenko et al. disclose wherein said converter circuit converts said voice signal and said data signal from an analog format to a digital format for receiving a combined voice and data signal (527 in Fig.15).

d) Regarding claim 4, Rabenko et al. disclose a system for synchronizing voice signal received via a public switched telephone network (PSTN) and data signal received via a digital subscriber line (DSL), the system comprising:

a PSTN interface coupled to transmit and receive the voice signal (492 in Fig. 15);

a data DSL transceiver coupled to modulate and demodulate the data signal (482 in Fig. 15; [0067])

a synchronization circuit coupled to synchronize said voice signal and said data signal (520 in Fig. 15); and

a converter circuit coupled to convert the synchronized voice signal and the synchronized data signal between analog and digital formats (524 in Fig.15); wherein said synchronization circuit synchronizes said voiceband signal with said DSL signal and comprise:

a second converter circuit coupled to convert said voice signal from a companded format to a linear format (inherent as 534 in Fig. 17; [0094] and [0154]);

an upsampler circuit coupled to increase a frequency of said voice signal from $(8 + \delta)M$ kHz to $(8 + \delta)M$ kHz (534 in Fig. 17); and

a re-timer circuit coupled to synchronize the upsampled voice signal with said data signal (535 in Fig. 17).

e) Regarding claim 5, Rabenko et al. disclose a system for synchronizing voice signal received via a public switched telephone network (PSTN) and data signal received via a digital subscriber line (DSL), the system comprising:

a PSTN interface coupled to transmit and receive the voice signal (492 in Fig. 15);

a data DSL transceiver coupled to modulate and demodulate the data signal (482 in Fig. 15; [0067])

a synchronization circuit coupled to synchronize said voice signal and said

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data signal (520 in Fig. 15); and

a converter circuit coupled to convert the synchronized voice signal and the synchronized data signal between analog and digital formats (527 in Fig.15); wherein said synchronization circuit synchronizes said voiceband signal with said PSTN signal and comprise:

a re-timer circuit coupled to synchronize upsampled voice signal with PSTN clock (535 in Fig. 17);

an downsampler circuit coupled to reduce a frequency of said upsampled voice signal from $(8 + \delta)$ M kHz to $(8 + \delta)$ kHz (534 in Fig. 17); and

a second converter circuit coupled to convert the downsampled voice signal from a linear format to a companded format (inherent as 534 in Fig. 17; [0094] and [0154]);

f) Regarding claim 11, Rabenko et al. disclose the system of claim 1, further comprising:

circuitry adapted to combine the voice signal and the data signal (as shown in Fig. 2).

g) Regarding claim 12, Rabenko et al. disclose the system of claim 11, further comprising:

a converter circuit coupled to convert the combined voice and data signals between analog and digital formats (527 in Fig.15).

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7. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Malek et al.(US 5,666,366).

a) Regarding claim 10, Malek et al. disclose a method for synchronizing a public switched telephone network (PSTN) voice signal and a digital subscriber line (DSL) data signal, the method comprising the steps of:

determining a phase offset between the voice signal and the data signal (172 in Fig.9); and

shifting one of said voice signal and said data signal according to said phase offset to synchronize said voice signal and said data signal (as shown in Fig. 6).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenko et al. (US 2001/0033583 A1) in view of Demjanenko et al. (US 6,643,270 B1).

a) Regarding claim 8, Rabenko et al. disclose a method for synchronizing a public switched telephone network (PSTN) voice signal and a digital subscriber line (DSL) data signal, the method comprising the steps of:

upsampling the voice signal to increased said voice signal's frequency to a frequency comparable with that of the data signal (534 in Fig. 17).

Rabenko et al. disclose all the subject matters described above except for the specific teaching of sample slipping that synchronize voice and data signal.

However, Demjanenko et al., in the same field of endeavor states: "PCM sample slips occur for purpose of synchronization within the telephone network or between telephone networks (Col 2, L2-7). Therefore, it is obvious to one of ordinary skill in art to adapt a sample slip in the communication system of Rabenko et al. By doing so, provide better sampling signals and synchronize frequencies of desired signals.

b) Regarding claim 9, Demjanenko et al. disclose the method of claim 8, wherein said step of sample slipping synchronizes said voice signal with said data signal (Col 2, L2-7).

Allowable Subject Matter

10. Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eva Y Zheng whose telephone number is 571 272-3049. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eva Yi Zheng
Examiner
Art Unit 2634

October 27, 2005



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